MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

July 22, 2005

Mr. Paul Dabbs
Chief, Water Resources Evaluation Section
Statewide Water Planning Branch
California Department of Water Resources
PO Box 942836
Sacramento, CA 94236-0001

Dear Mr. Dabbs:

Comments to California Water Plan Update, Public Review Draft, April 2005

The Metropolitan Water District of Southern California appreciates the opportunity to participate on the public advisory committee for the development of the California Water Plan Update and comment on the Plan's public review draft. Metropolitan commends the Department of Water Resources for its collaborative and transparent process in updating the Water Plan.

Metropolitan believes that the collaborative process has resulted in a strategic planning approach to the Water Plan that better communicates the needs and benefits for a diverse water management approach and a sound water delivery system. Metropolitan supports the balanced approach provided in the Public Review Draft, emphasizing both diversification (utilizing all appropriate water management options) and development of water supply and infrastructure. It also includes a reasonable approach for balancing water supply development and environmental concerns.

This Water Plan has articulated the vision for a reliable water supply to support a vital economy, healthy environment and high standards of living for the state. In addition, it identified three "foundational actions for sustainability" of water use efficiency, water quality, and environmental stewardship. Metropolitan's mission statement demonstrates that it shares this vision and the three areas of emphasis.

Metropolitan also supports the two initiatives of the Water Plan. Integrated regional water management is the model that Metropolitan and its member agencies have adopted since the early 1990's through the Integrated Water Resources Plan for the region, which has proven successful in challenging times. Through the IRP, Metropolitan and the member agencies have implemented many of the resource management strategies identified in the Water Plan. Metropolitan agrees with the Water Plan's conclusions on the importance of maintaining and improving the state water delivery system including rehabilitating infrastructure, implementing the CALFED Program, and sustaining the Sacramento-San Joaquin Delta.

The Water Plan provides the vision and direction for a better water supply future for the state. To that end, the Association of California Water Agencies has released a report, "No Time to Waste, A Blueprint for California Water." Metropolitan urges the state to consider the key issues and actions specified in the Blueprint Report as it prioritizes its implementation.

Suggestions for the Water Plan

There are several areas that the draft Water Plan has not addressed. Metropolitan suggests that DWR consider these areas when finalizing the Plan.

- In describing the 14 Recommendations, the Water Plan has identified many implementation challenges. Given that some challenges are difficult to overcome with current resource and financial constraints, the state cannot take an all-or-nothing stance; it must identify achievable steps to advance the recommendations.

- The 25 water management strategies in Volume 2 of the Plan were discussed independent of each other. While Metropolitan agrees that each region should select the mix of strategies that would work for its situation, the Water Plan should address the interrelationships of these strategies to be useful for the regions. For example, storage and transfer programs can work together to increase water supply for critical periods.

- The Water Plan needs to support inter-regional partnerships (such as for banking and transfers) in the context with regional water planning and management.

- DWR should look for more innovative solutions for improving statewide water management, such as maximizing the use of existing infrastructure and operations through mutually beneficial partnerships with regional or local agencies, and minor improvements to infrastructure to remove bottlenecks. This goes beyond the Water Plan's discussion of maintaining aging infrastructure and implementing CALFED

In addition to the general comments and suggestions above, Enclosure 1 contains specific comments to the various volumes of the Water Plan for your consideration.

If you have any questions about Metropolitan's comments or suggestions, please do not hesitate to contact me at (213) 217-6798 or gchan@mwdh2o.com.

Very truly yours,

Grace L. Chan
Manager, Resource Planning and Development

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Enclosure

ENCLOSURE 1

California Water Plan Update 2005
Public Review Draft
Specific Comments

Volume 1

Chapter 2
Page 2-2, Fundamental Lessons
"Solutions to California's water management issues are best planned and carried out on a regional basis." While Metropolitan agrees with this statement, especially in relation to development of local resources and inter-regional partnerships, the state has its role in leadership that needs to be explicitly described. For example, the state played a lead role in negotiation with the federal government in reaching agreements on the CALFED Record of Decision for the EIS/EIR and the Quantification Settlement Agreement on the Colorado River.

Suggest adding another fundamental lesson with the state taking a lead role in working with the federal agencies on statewide water issues while working collaboratively with regional and local water users. (State's role is actually described further in the chapter; summary bullet(s) should be added to this section.)

Chapter 3
Page 3-53 Metropolitan Water District Integrated Water Resources Plan
Metropolitan's Board of Direction approved the Integrated Water Resources Plan Update Report in July 2004. To avoid confusion of dates, please change all references to IRP Update, July 2004.

Chapter 4
Page 4-11 Scenario 2: Less Resource Intensive
Please clarify the statement "The cost of land is shrinking the availability of housing in Southern California." Is the cost of land shrinking because of higher density development, or the availability of housing shrinking because of higher cost of land?

Chapter 5
Page 5-7 Recommendation 2
On page 5-1, it states that the recommendations are directed at decision-makers and the state government. The first three bullets under the "Action Plan" describe efforts by local agencies and the role of the state agencies or government is not explicit.

Under the intended outcomes, DWR would prepare a number of guidelines. With the exception of the template for urban water management plans that is done, it does not seem realistic for the other guidelines to be completed as scheduled. Please clarify the "Critical Water Shortage Reduction Program" in the seventh bullet.

Under the performance measures, second bullet does not measure state's effort in promoting regional planning. Water suppliers over the threshold size are already required by law to prepare urban water management plans. The third bullet again does not measure the state's role.

Page 5-10 Recommendation 3
If the state has not define the scope of work (implementation challenges), the performance measures are too far-reaching. DWR needs to identify achievable performance measures.

Page 5-11 Recommendation 4
The first bullet under implementation challenges seems to assume that new water users fees or general taxes are the only ways to fund infrastructure maintenances and improvements. There is no action plan for the state to identify funding mechanisms. In addition, State Water Contractors and not new users fees or general taxes fund much of the SWP maintenances and improvements. The second bullet under implementation challenges incorrectly assumes infrastructure rehabilitation projects are not "affordable." Whether a project gains the support of stakeholder is cost-effectiveness. Cost-effectiveness should not be confused with affordability.

Under the Action Plan, we suggest that DWR should look for more innovative solutions for improving statewide water management, such as maximizing the use of existing infrastructure and operations through mutually beneficial partnerships with regional or local agencies, minor improvements to infrastructure to remove bottlenecks. This goes beyond the Water Plan's discussion of maintaining aging infrastructure and implementing CALFED.

Page 5-17 Recommendation 7
The intended outcomes and performance measures of this recommendation is too ambitious under current financial and resource constraints. DWR needs to identify realistic and achievable goals.

Page 5-19 Recommendation 8
The first bullet under implementation challenges seems to assume that new water users fees or general taxes are the only ways to fund work.

Volume 2

Chapter 1. Introduction

Metropolitan supports the development of analytical tools and information to evaluate the performance of resource strategies individually and more importantly as integrated mixes of strategies, and we would look forward to working with DWR to develop possible analytical approaches.

Chapter 4. Conjunctive Management and Groundwater Storage

Page 4-1. Box—Groundwater Recharge. The box text discusses recharge and banking for "later recovery and use or exchange with others". Where basins have been overdrafted or where a seawater barrier is needed to control seawater intrusion, not all of the recharged water may be targeted for later recovery. Yet these are valuable uses of the water that is not recovered that maintain the viability of the aquifer and quality of the water stored. Suggest adding a sentence or two to include this thought.

Page 4-1 through 4-3. The text on these pages includes statements that indicate that conjunctive management has increased average-year water deliveries or has the potential to increase future average annual water deliveries. Please clarify these statements. It is not clear whether this means that State water project *deliveries to the groundwater basins* are increased because the storage space is being utilized or if this means that because additional water is being stored, that *deliveries (i.e., extractions) from* the groundwater basins are increased.

Page 4-4. Infrastructure and Operational Constraints. Suggest adding a discussion of the need for coordination of infrastructure and operations for flood control and recharge of storm flows for conjunctive use. In Southern California, there is considerable opportunity to enhance groundwater recharge of local runoff by improved coordination of these efforts. Studies may also identify facility improvements and modifications that could further enhance groundwater recharge. Flood control operations move water to the ocean as quickly as possible. Waters that are diverted are silt-laden and clog spreading basins. Then in dry season, even recharge with imported water may be complicated by need to use storm channels for conveyance if those channels are being maintained during the same time frame.

Page 4-5. Water Quality. In the discussion of issues facing conjunctive use management, it may be appropriate to add a discussion of changing water quality standards. A water source may, at the time it is used for recharge, meet all drinking water quality standards. Over time, however, detection capabilities improve and new or changed water quality standards become applicable. As a result, contaminants that were not previously identified or detected may become future water quality issues creating potential liability uncertainties.

Chapter 5. Conveyance
The text seems to suggest that DWR's only role in conveyance development is to participate in the conveyance portion of CALFED. We suggest that DWR should take a bigger role in evaluating the statewide water conveyance backbone (SWP and CVP systems) to identify where moderate conveyance improvements could generate various benefits (water quality, yield, ecosystem restoration, etc.) and access underutilized infrastructure. For example, where improvements would enhance groundwater storage potential, or move water from region to region.

Chapter 7. Drinking Water Treatment and Distribution
Page 7-2, paragraph re Potential Costs: This paragraph includes a description of costs for Metropolitan's ozone retrofit program. The costs are expressed in a confusing way, and should be revised to state that the total cost, including capital and operating costs, for installing ozone treatment at Metropolitan's five treatment plants is approximately $50 per acre-foot.

Page 7-3, paragraph re Emerging Contaminants: Add the following text to this paragraph to make the discussion of this issue more complete: "As new regulations are developed to address emerging contaminants, water utilities may be required to install additional treatment technologies. This creates a challenge for long-term planning of water treatment investments."

Chapter 9. Ecosystem Restoration
Page 9-2. Last paragraph leaves the impression that all large dams and other water projects will have unmitigatable impacts. We believe that reservoirs and water projects can be designed or operated to have net benefit to the environment. Also not sure what this paragraph adds to the discussion of this section. Suggest deleting this paragraph.

Page 9-3. Major Issues. An issue not discussed is that regulation is frequently based upon population counts or indices of certain species, e.g. operations of Delta cross channel, savage numbers at the project pumps. As a result, restoration measures are biased toward improving certain populations and not necessarily ecosystem health or diversity.

Page 9-5. Recommendations. Add a recommendation for the appropriate agency to evaluate the cost at the margin of various flow levels to support ecosystem and emphasize optimizing operations to provide net environmental and supply benefits.

Chapter 11. Groundwater Remediation/Aquifer Remediation
Consider introducing this subject by discussing the natural and man-caused sources of contamination: bedrock and soil types, seawater intrusion, mining leachate, agriculture (dairies, fertilizers, herbicides and pesticides), urban/rural (septic systems, landfills, fuel storage/underground storage tanks, etc.), industrial (solvents, metals, acids/bases, etc).

Consider combining and expanding Table 1(Types of treatment) and Table 2 (List of Contaminants) to provide a very brief description of each type of treatment, to indicate the types of contaminants it has been used to remove, and, if available, to provide a comment on factors relevant to the selection of each process —e.g. bio remediation v. ion exchange.

Table 3 is excellent in that it matches contaminant with treatment types and indicates points of contact for following up on details of remediation projects.

The discussion of Potential Benefits from Remediation of Groundwater is lukewarm. In Metropolitan's service area, groundwater comprises 35 percent of the total average annual water supply. Many of the groundwater basins are plagued with various contaminants that require blending and/or remediation to meet drinking water standards. Further, the aquifers are an extremely valuable storage and delivery resource that is jeopardized if contamination is not addressed. Future water supply reliability requires that groundwater resources be maintained.

Major Issues relating to Groundwater Remediation
Page 11-6. Water Quality. Suggest noting that some contaminants such as nitrates from septic systems or dairies are widespread in the vadose zone and will continuously leach into the groundwater with percolation of precipitation or by rising groundwater levels.

Page 11-7. Costs of Treatment. Suggest noting that identifying cost and responsibility for remediation can significantly delay implementation of the remediation. If plumes spread during the delay, remediation costs and the number of parties affected can increase.

Chapter 12. Matching Water Quality to Water Use
The report should be revised to consistently use "MWD" when referring to Metropolitan Water District of Southern California.

Page 12-3, first paragraph: Include explanation that bromide levels are a concern in Delta water supplies because bromide is a precursor to the formation of disinfection by-products that are a public health concern during the water treatment disinfection process.

Page 12-3, last paragraph: This paragraph includes information on CALFED estimated costs for implementing water quality exchanges. It should be clarified that the $100 million cost estimate was originally a rough estimate included in the CALFED ROD. This cost estimate is likely to be significantly revised based on work to develop potential water quality exchange partnerships and on current efforts to develop a long-term CALFED finance plan.

Chapter 13. Pollution Prevention
Page 13-3, figure labeled "Cumulative Total of Sources with Detection > MCL": Text should be included to clarify for the reader that this figure illustrates the number of sources of drinking water in which contaminants occur at levels greater than drinking water standards, and does not

represent that quality of drinking water provided to consumers. Sources of water with contaminant problems are either not used as a source of drinking water or are treated to remove contaminants before distribution to consumers.

Page 13-4, fourth paragraph re "Natural Impacts": This paragraph should be revised to include a broader discussion of naturally occurring water quality contamination problems (such as arsenic and selenium), rather than focusing on discussion of organic carbon and bromide in the Delta. The discussion of organic carbon and bromide should either be deleted or significantly revised. In particular, the second sentence in this paragraph should be deleted. The draft text makes statements that are not supported by data and incorrectly minimizes the concerns with respect to organic carbon and bromide levels in Delta water. Metropolitan agrees that a significant source of organic carbon is watershed runoff, however, urban and agricultural sources can at times contribute large loads of organic carbon to the system, and more data are needed to better understand the impact of these sources and whether they are controllable.

Page 13-4, paragraph re "Emerging Contaminants": The first sentence is very Delta focused and should be revised as follows to represent issues relevant to many sources of water:
"Traditionally, water agencies focus on those contaminants that are regulated or will be regulated in the near future, such as pathogens (disease-causing microorganisms), disinfection by-products (potential cancer-causing contaminants), and inorganic and organic contaminants."

Chapter 15. Recharge Areas Protection

Additional Recommendations for Recharge Enhancement

1. Encourage coordination of groundwater recharge and flood control activities to enhance recharge of storm flows. Provide a source of funds for studies jointly sponsored by cooperating groundwater and flood control agencies to identify additional opportunities for recharge and needs for advancing those opportunities.
2. Identify and evaluate opportunities to reduce runoff and increase recharge on residential, school, park and other unpaved areas. Review applicable city and county ordinances and building codes.

Chapter 16. Recycled Municipal Water

Page 16-1, third paragraph, line 2: "wastewater of … governmental origins" is a very unusual use of terms. Suggest changing to "wastewater of commercial, industrial, and institutional origins."

Page 16-1 and 16-4: suggesting cited the sources of data for the "pie" and the graph.

Chapter 20. Urban Land Use Management

The recommendations for the State, local governments, LAFCOs, and water supplies are already required by statues in on form or another. Suggesting devising new recommendations to better implement existing statues. For example, work with the building industry, local governments,

and water supplies to (1) install dual plumbing for recycled water use where possible in new development, or (2) install water efficient landscape in new development.

Chapter 22. Urban Water Use Efficiency

Page 22-1, fourth paragraph: Please check with CUWCC on the number of retrofitted water-efficient toilets. MWD service area alone has retrofitted the 2.3 million number cited.

Page 22-3, first full paragraph, last sentence: "A consistent and broadly acceptable method to evaluate cost-effectiveness and water savings is needed." The CUWCC has already done a lot in this area even though more needs to be done. Suggest contacting CUWCC for alternate languages recognizing the accomplishments to date and areas to be resolved.

Page 22-3, fourth paragraph: It is indeed true for disadvantage communities to compete for grant funding. The reasons go beyond the ability to put together a nice application package. For example, those communities needs much outreach to implement programs driving unit costs higher, therefore less competitive; or lack of resources to utilize grants such as matching funds and program administers. Suggest pointing out the issues, rather than just stating a fact. Also add a recommendation to address this issue.

Page 22-4, Data Collection: the discussion of metering needs to be put in context. "Most urban area" and "about 700,000 water users remain unmetered" What is most, 60%, 80%, 90%? Also described recent legislation that partially addresses this issue.

Page 22-5, four paragraph: conservation offset is a good strategy for certain high-demand, high-growth areas, but not widely applicable and the opportunities will likely decline as newer communities already utilize water efficient fixtures and existing communities become more efficient with retrofits and replacements. The categorization that these programs are "not widely used despite its successes" is over-generalization and over-simplification.

Chapter 23. Water Transfers

Page 23-4, second paragraph: the discussion on CVPIA's transfer provisions should acknowledge that despite new authority CVPIA provided for CVP water users to transfer supplies to non-CVP entities, CVP transfers have been limited due to the financial surcharges that CVPIA applies to such transfers making them uneconomical.

Volume 3
Chapter 5. South Coast Hydrologic Region

Page 5-2. Water Supply and Use.
Imported supply to the region is the "supplemental" water, rather than local resources being developed to complement imported supplies. Suggest changing the first paragraph to:

> "The region has developed a diverse mix of both local and imported water supply sources. Local water resources development over the last 15 years include water recycling, groundwater storage and conjunctive use, conservation, brackish water desalination, water transfer and storage, and infrastructure. The region imports…"

Deleted: An array of local projects such as

Deleted: enhancements have been developed to complement imported water supplies

Page 5-2. Last paragraph
"MWD imports an average of 1.22 million acre-feet of water from the SWP…"
Please state average over what period of time.

Page 5-3 First paragraph
"Fifteen percent of the region's water supply is provided by agencies other than MWD"
This statement is incorrect because MWD only provides 50 percent within its own service area.
Suggest revising statement to:
"Fifteen percent of the region's water supply is used outside of MWD and its member agencies' service area." (Is it 15% of total water supply, or 15% of SWP supply?)

Page 5-3 Third paragraph
"Because water quantity and water quality are separable, watermasters…" Do you mean inseparable?

Page 5-4 First paragraph
"Water use efficiency measures, which are partnering waste water treatment agencies with wholesale and retail water districts…" Please clarify the term "water use efficiency measures". The term has been use to refer to water conservation at times, water conservation and recycling at other times.

Page 5-6, Fourth paragraph
First sentence should be revised to state that Colorado River Aqueduct TDS concentrations are about 700 mg/L, rather than 900 mg/L (source: Salinity Management Study, MWD and USBR, June, 1999).

Page 5-8, Third paragraph
First sentence should be revised to state that California's use of Colorado River water is being managed to ensure that the State (rather than the region) reduces by 2016 its use of Colorado River water from 5.3 MAF to 4.4 MAF.

Page 5-21 Figure 5-3
Suggest removing legends not used in graph.